

## ABOUT PHONO SOLAR

Phono Solar Technology Co., Ltd. is one of the world's leading renewable energy product manufacturers and a well trusted brand provider. The Phono Solar brand has become synonymous with high performing, top quality photovoltaic panels that are ideal for use in large scale power plants, commercial and residential installations.

### MANUFACTURED OUTSIDE CHINA

16%

Up to 16% module efficiency



Positive current sorting



Outstanding performance in weak-light conditions



Certified to withstand increased loads of up to 5400Pa



Excellent temperature coefficient giving higher yields in the long term



10-year product warranty\*  
25-year performance warranty\*

- Manufacturing facility certified by ISO 9001, ISO 14001 and OHSAS 18001
- Internal quality control has standards higher than both IEC and UL

- Product quality is assured through the use of branded components
- Free module recycling through PV cycle Association membership\*\*

## HIGH PERFORMANCE SOLAR MODULES

# 285W-305W

**POLY** Diamond Series

\* IN COMPLIANCE WITH OUR WARRANTY TERMS AND CONDITIONS.  
\*\* IN PV CYCLE MEMBER COUNTRIES ONLY, SEE: WWW.PVCYCLE.COM



## MECHANICAL CHARACTERISTICS

<b>Solar Cells</b>	Polycrystalline 156mm x 156mm square, 6 x 12 pieces in series
<b>Dimension</b>	Length: 1973mm
	Width: 989mm
	Height: 39mm
<b>Weight</b>	21.9kg
<b>Front Glass</b>	4.0mm toughened glass
<b>Frame</b>	Anodized aluminium alloy
<b>Cable</b>	1.0m wire (ø4mm <sup>2</sup> )
<b>Junction Box</b>	IP 65 rated

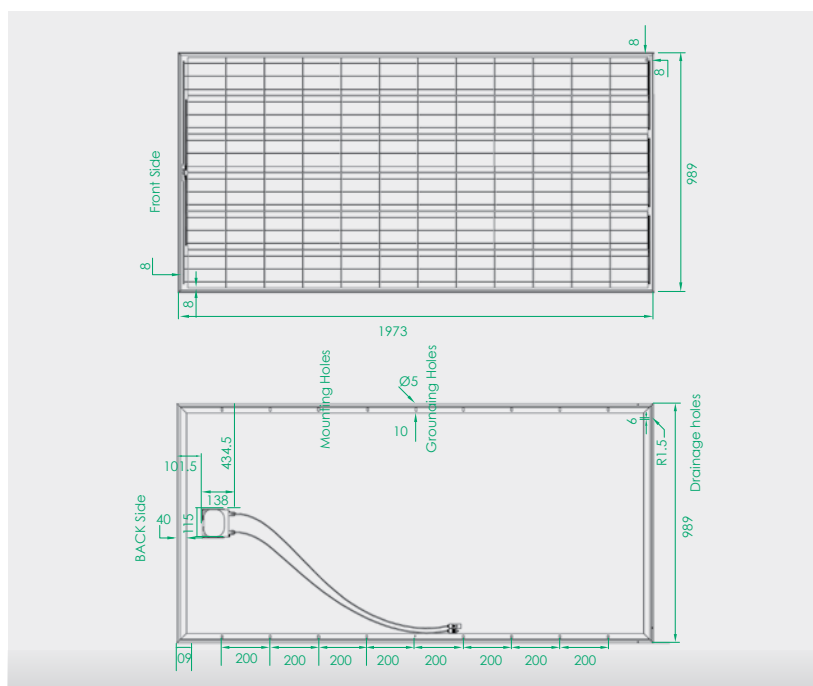
## ABSOLUTE MAXIMUM RATING

Parameter	Values
Operating Temperature	From -40 to +85°C
Hail Diameter @ 80km/h	Up to 25mm
Surface Maximum Load Capacity	Up to 5400Pa
Maximum Series Fuse Rating	15A
IEC Application Class (IEC 61215)	A
Fire Rating (UL 1703)	C
Maximum System Voltage	1000V DC (IEC 61215)
	600V DC (UL 1703)

## ELECTRICAL TYPICAL VALUES<sup>1,2</sup>

Model	Rated Power (P <sub>mpp</sub> )	Tolerance	Rated Current (I <sub>mpp</sub> )	Rated Voltage (V <sub>mpp</sub> )	Short Circuit Current (I <sub>sc</sub> )	Open Circuit Voltage (V <sub>oc</sub> )	Module Efficiency (%)
PSTA285P-24/T	285W	0~+5W	8.01	35.59	8.45	44.76	14.6
PSTA290P-24/T	290W	0~+5W	8.11	36.74	8.55	44.91	14.9
PSTA295P-24/T	295W	0~+5W	8.22	35.89	8.65	45.06	15.1
PSTA300P-24/T	300W	0~+5W	8.33	36.05	8.75	45.20	15.4
PSTA305P-24/T	305W	0~+5W	8.43	36.20	8.85	45.35	15.6

## DIMENSIONS



## TEMPERATURE CHARACTERISTICS

NOCT (Nominal Operation Cell Temperature)	45°C ± 2°C
Voltage Temperature Coefficient	-0.32%/K
Current Temperature Coefficient	+0.05%/K
Power Temperature Coefficient	-0.43%/K

## WEAK LIGHT PERFORMANCE

Intensity [W/m <sup>2</sup> ]	Relative I <sub>mpp</sub>	Relative V <sub>mpp</sub>
1000	1.0	1.000
800	0.8	0.996
600	0.6	0.990
400	0.4	0.983
200	0.2	0.952

## PACKING CONFIGURATION

Container	40' HQ
Pieces per pallet	22
Pallets per container	27
Pieces per container	594

## PARTNER INFORMATION

**alkaSOL GmbH**  
 Moosfürtherstrasse 66  
 94522 Wallersdorf / Germany  
[www.alkaSOL.de](http://www.alkaSOL.de)

Note: This datasheet is not legally binding. Phono Solar reserves the right to make specifications changes without notice. Further information can be found on our website: [www.phonosolar.com](http://www.phonosolar.com)

- Defined as standard deviation of thousands measurements. Absolute power values depend on the measuring system. They can differ by +/-5% from one measuring system to another.
- Measurement conditions under irradiance level of Standard Test Conditions(STC): 1000W/m<sup>2</sup>, Air mass 1.5 Spectrum, cell temperature of 25°C.